

Trend Study 11B-8-00

Study site name: Cedar Corral.

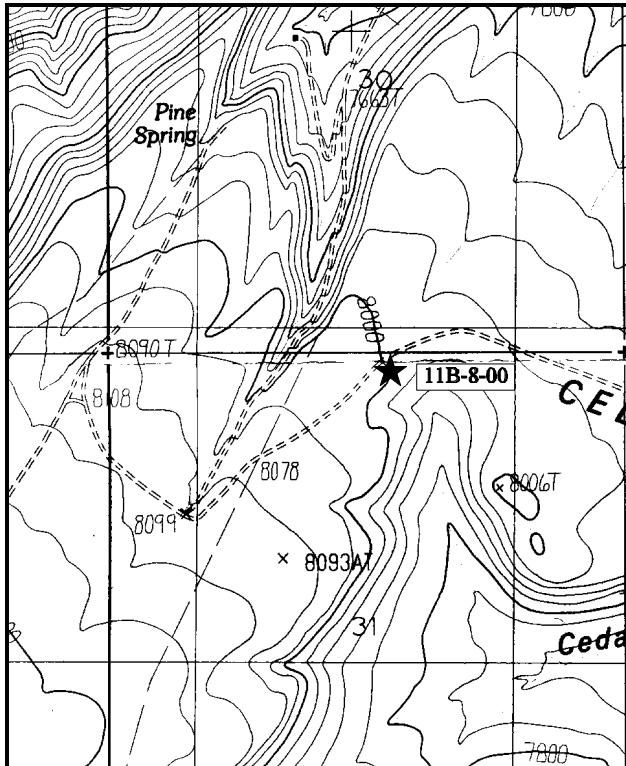
Range type: Pinyon-Juniper.

Compass bearing: frequency baseline 165°M.

Footmark (first frame placement) 5 feet, footmarks (frequency belts) line 1 (11 & 95ft), line 2 (34ft), line 3 (59ft), line 4 (71ft). Belt 2 rebar @ 5ft.

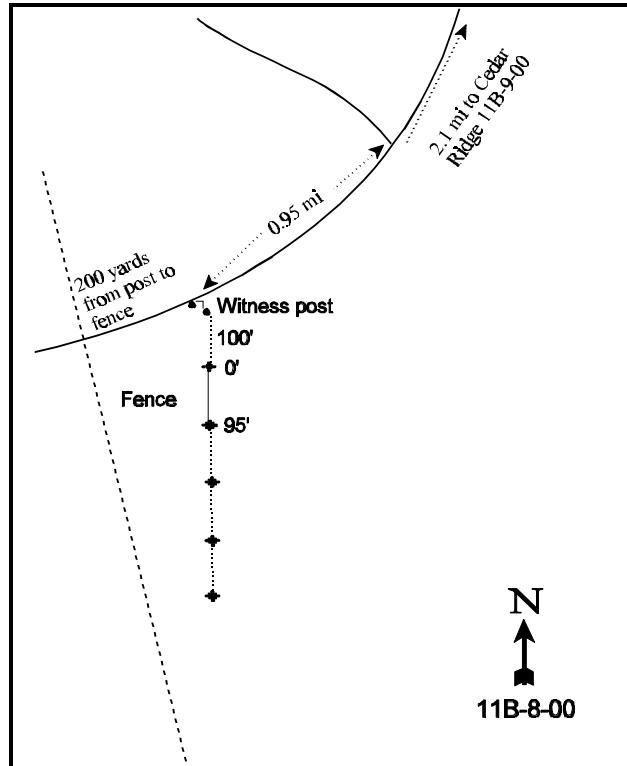
LOCATION DESCRIPTION

From Bruin Point take the middle fork and go 0.35 miles. Stay right at the fork just beyond a cattle guard and go 0.9 miles. Proceed past another cattle guard, go straight through an intersection and continue 3.1 miles. Turn left at the fork and continue 2.5 miles to a gate by a cabin. Continue 3.2 miles, cross a cattle guard and go 5.3 miles more on the main road to a fork where you bear right. Go 0.2 miles to a cattle guard. Continue 0.5 miles to a major fork. Stay right and go 0.4 miles (passing 11B-7-00) to a fork. Stay right on the main road and go 4.8 miles to a junction. Turn left and go 2.7 miles to a "T" intersection. Turn right and proceed 0.95 miles to a witness post (fence post surrounded by pile of rocks) on the left side of the road, fifteen feet beyond a pinyon. The 0-foot end of the baseline (marked by a fence post tagged #7801) is 100 feet south of the witness post. There is a fence crossing the road approximately 200 yards southwest of the witness post.



Map Name: Twin Hollow

Township 13S, Range 16E, Section 31



Diagrammatic Sketch

UTM. 4389651.061 N, 571353.333 E

DISCUSSION

Trend Study No. 11B-8 (32-12)

The Cedar Corral site is located at a moderately high elevation (8,100 feet) on the southern part of the West Tavaputs Plateau. This study samples a part of the pinyon-juniper mountain brush-grass type with a northeast aspect on a nearly level slope (1%-2%). The study is on BLM land, just across the fence from private land. Cattle grazed the area in the past as part of the Green River allotment. However, there has been no cattle grazing on this allotment since 1994. The area also serves as big game winter range. The grasses are rather depleted in this type, with better elk forage found in the intermittent openings. The large pinyon provide excellent hiding and thermal cover, but the high elevation of the site would limit its use in many winters. Pellet group observations indicate light deer and elk use. Pellet group data from the 2000 reading estimate 8 deer and 10 elk days use/acre (20 ddu/ha and 25 edu/ha). Wild horse use is estimated at 9 days use/acre (22 hdu/ha). The Range Creek unit is used by an estimated 213 wild horses which reside in two groups. One group frequents the Cottonwood and Cold ridge area, while the other group primarily uses the Cedar ridge area. In addition, some sage grouse sign was also encountered.

The soil is moderately shallow, yet quite variable as evidenced with the presence of black sagebrush and mountain big sagebrush. Effective soil depth is estimated at just over 9 inches. It is very compacted with abundant rocks on the surface and throughout the profile. There are also extensive sandstone rock layers just under the surface in some areas. The soil has a sandy clay loam to sandy loam texture with a marginally neutral soil reaction (6.6 pH). Organic matter is low at 1.9 % and phosphorus is limited at just 4.5 ppm. Phosphorus levels less than 10 ppm may limit normal plant growth and development. There is evidence of erosion and soil movement, but the level terrain keeps water erosion to a minimum. There is a build-up of soil, litter and cryptogams under the scattered shrubs. Soil is deeper under the old pinyon.

Pinyon pine is the dominant overstory tree species with an estimated density of 128 trees/acre in 2000 using point-center quarter data. Overhead canopy cover is estimated at 15%. Utah juniper and Rocky Mountain juniper are less common with an estimated density of 11 and 8 trees/acre respectively. Valuable deer browse species include, true mountain mahogany, mountain big sagebrush, black sagebrush, and serviceberry. These key species currently ('00) make up 75% of the total browse cover. Utilization has been mostly light to moderate since 1986. Vigor is generally good and percent decadence low.

Several desirable forage grasses occur on the site, but overall abundance is erratic with a low cover value of only 3% in 1994 and 6% in 2000. Common species include: thickspike and bluebunch wheatgrass, and mutton and Sandberg bluegrass. Utilization of grasses is light. A variety of forbs are present, but the majority are small, low-growing varieties and their contribution to forage production is small. Combined, forbs do produce more cover than grasses. The most abundant species is the succulent, lance-leaved sedum or stonecrop. The only other common species include pussy toes, hairy goldaster, and desert phlox.

1986 APPARENT TREND ASSESSMENT

As far as browse species are concerned, vegetative trend is considered stable to possibly up because of the current excellent vigor and reproduction of the important browse species. If the management objective stresses the importance of grasses however, they are not fairing quite as well and under continued cattle grazing may decrease further. The soil trend appears stable.

1994 TREND ASSESSMENT

The soil trend is considered stable at this time, but with the continuing loss of grasses and forbs. This trend should be closely monitored. Overall trend for the five key browse is slightly up with significant decreases in

percent decadency and improved vigor. The herbaceous trend is slightly down due to a decrease in the sum nested frequency of grasses and forbs.

TREND ASSESSMENT

soil - stable (3)

browse - slightly up (4)

herbaceous understory - slightly down (2)

2000 TREND ASSESSMENT

Trend for soil is up slightly due to an increase in vegetative and litter cover combined with a decline in percent bare ground. Trend for browse appears stable with similar densities, good vigor and reproduction, low decadence, and mostly light use of the key species. It appears that deer and elk do not use this area very heavily. The only question to the browse trend is: will the pinyon and juniper continue to increase in canopy cover and how quickly? Currently, pinyon provides an overhead canopy cover of 15%. It doesn't currently appear to be effecting the understory shrubs. However, if it increases in the future, it will come at the expense of the understory shrubs and herbaceous plants. Trend for the herbaceous understory is down slightly due to a decline in the sum of nested frequency of perennial grasses and forbs. Sum of nested frequency of grasses and forbs have steadily declined since 1986 when the site was established. This is likely due to the increase in cover of shrubs and trees.

TREND ASSESSMENT

soils - up slightly (4)

browse - stable (3)

herbaceous understory - slightly down (2)

HERBACEOUS TRENDS --

Herd unit 11B, Study no: 8

T y p e	Species	Nested Frequency			Quadrat Frequency			Average Cover %	
		'86	'94	'00	'86	'94	'00	'94	'00
G	<i>Agropyron dasystachyum</i>	a43	ab59	b66	17	29	30	.22	.42
G	<i>Agropyron spicatum</i>	b163	a41	a42	67	18	18	.41	1.81
G	<i>Koeleria cristata</i>	c23	b7	a-	11	3	-	.16	-
G	<i>Oryzopsis hymenoides</i>	13	2	17	5	1	7	.03	.28
G	<i>Poa fendleriana</i>	a18	b79	b65	8	28	29	1.65	1.75
G	<i>Poa secunda</i>	b85	a45	a56	40	18	24	.50	1.25
G	<i>Sitanion hystrix</i>	a1	b21	a-	1	11	-	.39	-
G	<i>Stipa comata</i>	a-	ab4	b10	-	2	4	.03	.21
G	<i>Stipa lettermani</i>	a-	b15	a-	-	5	-	.12	-
Total for Annual Grasses		0	0	0	0	0	0	0	0
Total for Perennial Grasses		346	273	256	149	115	112	3.54	5.75
Total for Grasses		346	273	256	149	115	112	3.54	5.75
F	<i>Allium spp.</i>	a-	b26	a2	-	12	2	.06	.06
F	<i>Antennaria rosea</i>	57	60	61	23	22	23	2.25	2.48
F	<i>Arabis drummondii</i>	b41	a3	a-	18	1	-	.00	-
F	<i>Arabis perennans</i>	b21	b14	a-	10	5	-	.02	-
F	<i>Astragalus argophyllus</i>	8	5	1	4	2	1	.03	.00
F	<i>Castilleja flava</i>	2	-	-	1	-	-	-	-
F	<i>Castilleja linariaefolia</i>	-	-	3	-	-	1	-	.00
F	<i>Calochortus nuttallii</i>	1	2	-	1	1	-	.00	-
F	<i>Chaenactis douglasii</i>	-	5	-	-	2	-	.01	-
F	<i>Collinsia parviflora</i> (a)	-	1	-	-	1	-	.00	-
F	<i>Crepis acuminata</i>	b21	a-	a2	11	-	2	-	.01
F	<i>Cryptantha spp.</i>	-	-	1	-	-	1	-	.03
F	<i>Eriogonum alatum</i>	b11	a-	a-	5	-	-	-	-
F	<i>Erigeron eatonii</i>	b100	a27	a13	48	10	8	.12	.06
F	<i>Erigeron flagellaris</i>	a12	b37	ab21	5	17	11	.13	.18
F	<i>Eriogonum racemosum</i>	a-	b11	a-	-	5	-	.19	-
F	<i>Eriogonum umbellatum</i>	b59	a21	ab43	28	12	20	.20	.27
F	<i>Heterotheca villosa</i>	a7	b30	b37	4	13	19	.82	1.79
F	<i>Ipomopsis aggregata</i>	11	10	3	4	4	1	.02	.00
F	<i>Linum lewisii</i>	-	4	-	-	2	-	.01	-
F	<i>Lomatium triternatum</i>	b29	a-	a3	13	-	2	-	.01
F	<i>Machaeranthera canescens</i>	-	2	-	-	1	-	.03	-
F	<i>Machaeranthera grindelioides</i>	4	-	-	3	-	-	-	-
F	<i>Penstemon spp.</i>	-	3	4	-	1	2	.00	.01

T y p e	Species	Nested Frequency			Quadrat Frequency			Average Cover %	
		'86	'94	'00	'86	'94	'00	'94	'00
F	<i>Phlox austromontana</i>	b31	a15	b28	14	7	13	.43	.91
F	<i>Phlox longifolia</i>	-	-	3	-	-	2	-	.01
F	<i>Polygonum douglasii</i> (a)	a-	b35	a4	-	13	1	.06	.00
F	<i>Sedum lanceolatum</i>	a135	b210	a152	56	69	58	3.44	2.44
F	<i>Senecio multilobatus</i>	-	1	-	-	1	-	.00	-
F	<i>Sphaeralcea coccinea</i>	a-	b9	a-	-	4	-	.04	-
F	<i>Taraxacum officinale</i>	-	3	-	-	2	-	.04	-
F	Trifolium spp.	b32	a-	a-	15	-	-	-	-
Total for Annual Forbs		0	36	4	0	14	1	0.07	0.00
Total for Perennial Forbs		582	498	377	263	193	166	7.91	8.30
Total for Forbs		582	534	381	263	207	167	7.98	8.31

Values with different subscript letters are significantly different at % = 0.10 (annuals excluded)

BROWSE TRENDS --

Herd unit 11B, Study no: 8

T y p e	Species	Strip Frequency		Average Cover %	
		'94	'00	'94	'00
B	<i>Amelanchier utahensis</i>	25	23	4.46	6.61
B	<i>Artemisia frigida</i>	-	-	.00	-
B	<i>Artemisia nova</i>	49	40	3.44	2.45
B	<i>Artemisia tridentata vaseyana</i>	57	66	6.50	9.81
B	<i>Cercocarpus montanus</i>	12	19	1.87	3.09
B	<i>Chrysothamnus depressus</i>	31	23	.25	.25
B	<i>Chrysothamnus nauseosus</i>	-	-	-	.63
B	<i>Chrysothamnus viscidiflorus</i> <i>viscidiflorus</i>	34	28	.50	.13
B	<i>Gutierrezia sarothrae</i>	18	12	.03	.04
B	<i>Opuntia</i> spp.	11	7	.05	.00
B	<i>Pediocactus simpsonii</i>	0	1	-	-
B	<i>Pinus edulis</i>	0	7	3.29	4.76
B	<i>Symphoricarpos oreophilus</i>	17	19	.18	1.66
Total for Browse		254	245	20.60	29.47

CANOPY COVER --

Herd unit 11B, Study no: 8

Species	Percent Cover '00
Amelanchier utahensis	1
Pinus edulis	15

BASIC COVER --

Herd unit 11B, Study no: 8

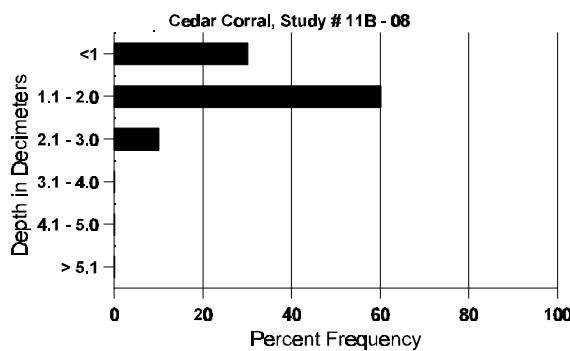
Cover Type	Nested Frequency		Average Cover %		
	'94	'00	'86	'94	'00
Vegetation	323	295	4.50	32.50	37.30
Rock	162	110	8.50	6.57	8.14
Pavement	63	97	1.00	.14	.72
Litter	383	372	50.75	40.25	52.41
Cryptogams	38	64	3.50	.38	1.94
Bare Ground	268	221	31.75	29.77	22.95

SOIL ANALYSIS DATA --

Herd Unit 11B, Study # 8, Study Name: Cedar Corral

Effective rooting depth (inches)	Temp °F (depth)	pH	% sand	% silt	% clay	%OM	PPM P	PPM K	dS/m
9.50	64.2 (9.92)	6.6	54.0	25.4	20.6	1.9	4.5	198.4	0.8

Stoniness Index



PELLET GROUP FREQUENCY --

Herd unit 11B, Study no: 8

Type	Quadrat Frequency	
	'94	'00
Rabbit	29	14
Horse	2	4
Elk	8	8
Deer	16	7

Pellet Transect		
Pellet Groups per Acre	Days Use per Acre (ha)	
'00	'00	
157	N/A	
104	N/A	
131	10 (25)	
157	8 (20)	

BROWSE CHARACTERISTICS --

Herd unit 11B, Study no: 8

A G E	Y	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.	Total							
		1	2	3	4	5	6	7	8	9	1	2	3	4										
<i>Amelanchier utahensis</i>																								
S	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0							
	94	1	-	-	2	-	-	-	-	-	3	-	-	-	60		3							
	00	2	-	-	-	-	-	4	-	-	6	-	-	-	120		6							
Y	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0							
	94	2	-	-	2	-	-	-	-	-	4	-	-	-	80		4							
	00	8	-	-	3	-	-	-	-	-	11	-	-	-	220		11							
M	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0							
	94	22	6	-	-	-	-	-	-	-	28	-	-	-	560	47 59	28							
	00	7	7	-	4	2	-	-	-	-	19	-	1	-	400	46 56	20							
D	86	2	-	-	-	-	-	-	-	-	2	-	-	-	133		2							
	94	1	1	-	-	-	-	-	-	-	1	-	-	1	40		2							
	00	1	2	-	-	1	-	-	-	-	3	-	-	1	80		4							
X	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0							
	94	-	-	-	-	-	-	-	-	-	-	-	-	-	20		1							
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	20		1							
% Plants Showing		<u>Moderate Use</u>		<u>Heavy Use</u>		<u>Poor Vigor</u>		<u>%Change</u>																
'86		00%		00%		00%		+80%																
'94		21%		00%		03%		+ 3%																
'00		34%		00%		06%																		
Total Plants/Acre (excluding Dead & Seedlings)												'86	133	Dec:	100%									
												'94	680		6%									
												'00	700		11%									

A G E	Y	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.	Total
		1	2	3	4	5	6	7	8	9	1	2	3	4			
Artemisia nova																	
S	86	9	-	-	-	-	-	-	-	-	9	-	-	-	600		9
	94	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0
	00	2	-	-	-	-	-	-	-	-	2	-	-	-	40		2
Y	86	21	2	-	-	-	-	-	-	-	23	-	-	-	1533		23
	94	9	2	-	1	-	-	-	-	-	12	-	-	-	240		12
	00	4	-	-	-	-	-	-	-	-	4	-	-	-	80		4
M	86	5	2	-	-	-	-	-	-	-	7	-	-	-	466	9 10	7
	94	61	33	9	-	-	-	-	-	-	103	-	-	-	2060	11 17	103
	00	47	25	2	2	-	-	-	-	-	76	-	-	-	1520	10 18	76
D	86	4	2	-	-	-	-	-	-	-	6	-	-	-	400		6
	94	6	5	1	-	-	-	-	-	-	9	-	-	3	240		12
	00	7	2	-	-	-	-	-	-	-	6	-	-	3	180		9
X	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0
	94	-	-	-	-	-	-	-	-	-	-	-	-	-	280		14
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	200		10
% Plants Showing			<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>% Change</u>					
		'86			17%			00%			00%					+ 6%	
		'94			31%			08%			02%					-30%	
		'00			30%			02%			03%						
Total Plants/Acre (excluding Dead & Seedlings)												'86	2399	Dec:	17%		
												'94	2540		9%		
												'00	1780		10%		
Artemisia tridentata vaseyana																	
S	86	23	3	-	-	-	-	-	-	-	26	-	-	-	1733		26
	94	4	-	-	2	-	-	-	-	-	6	-	-	-	120		6
	00	6	-	-	-	-	-	-	-	-	6	-	-	-	120		6
Y	86	16	-	-	-	-	-	-	-	-	16	-	-	-	1066		16
	94	34	-	-	1	-	-	-	-	-	35	-	-	-	700		35
	00	14	-	-	-	-	-	-	-	-	14	-	-	-	280		14
M	86	5	-	-	-	-	-	-	-	-	5	-	-	-	333	13 16	5
	94	88	30	-	2	-	-	-	-	-	120	-	-	-	2400	21 31	120
	00	99	21	-	13	-	-	2	-	-	130	5	-	-	2700	17 26	135
D	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0
	94	2	5	-	-	-	-	2	-	-	6	-	-	3	180		9
	00	27	2	-	3	-	-	-	-	-	14	-	-	18	640		32
X	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0
	94	-	-	-	-	-	-	-	-	-	-	-	-	-	340		17
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	360		18
% Plants Showing			<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>% Change</u>					
		'86			00%			00%			00%					+57%	
		'94			21%			00%			02%					+ 9%	
		'00			13%			00%			10%						
Total Plants/Acre (excluding Dead & Seedlings)												'86	1399	Dec:	0%		
												'94	3280		5%		
												'00	3620		18%		

A G E	Y	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.	Total	
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Cercocarpus montanus																		
S	86	1	-	-	-	-	-	-	-	-	1	-	-	-	66		1	
	94	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	00	5	-	-	-	-	-	-	-	-	5	-	-	-	100		5	
Y	86	4	2	-	-	-	-	-	-	-	6	-	-	-	400		6	
	94	1	-	1	-	-	-	-	-	-	2	-	-	-	40		2	
	00	5	-	-	2	-	-	-	-	-	7	-	-	-	140		7	
M	86	2	1	-	-	-	-	-	-	-	3	-	-	-	200	15 15	3	
	94	7	2	-	2	-	-	-	-	-	11	-	-	-	220	51 51	11	
	00	4	5	1	2	1	-	-	-	-	12	-	1	-	260	56 68	13	
D	86	1	-	-	-	-	-	-	-	-	1	-	-	-	66		1	
	94	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	00	-	1	-	-	-	-	-	-	-	1	-	-	-	20		1	
% Plants Showing			<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>						
			'86	30%		'94	00%		'00	00%						-61%		
																+38%		
			'00	33%			05%			05%								
Total Plants/Acre (excluding Dead & Seedlings)												'86	666	Dec:	10%			
												'94	260		0%			
												'00	420		5%			
Chrysothamnus depressus																		
S	86	2	-	-	-	-	-	-	-	-	2	-	-	-	133		2	
	94	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
Y	86	6	-	-	-	-	-	-	-	-	6	-	-	-	400		6	
	94	4	-	-	-	-	-	-	-	-	4	-	-	-	80		4	
	00	2	-	-	-	-	-	-	-	-	2	-	-	-	40		2	
M	86	37	-	-	-	-	-	-	-	-	37	-	-	-	2466	4 6	37	
	94	60	1	-	1	-	-	-	-	-	62	-	-	-	1240	4 8	62	
	00	33	8	-	2	-	-	-	-	-	43	-	-	-	860	4 6	43	
D	86	7	-	-	-	-	-	-	-	-	7	-	-	-	466		7	
	94	2	3	-	-	-	-	-	-	-	3	-	-	2	100		5	
	00	4	-	1	-	-	-	-	-	-	1	-	-	4	100		5	
X	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	94	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	60		3	
% Plants Showing			<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>						
			'86	00%		'94	00%		'00	00%						-57%		
																+30%		
			'00	16%			02%			08%								
Total Plants/Acre (excluding Dead & Seedlings)												'86	3332	Dec:	14%			
												'94	1420		7%			
												'00	1000		10%			

A	Y	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.	Total	
G	R	1	2	3	4	5	6	7	8	9	1	2	3	4				
Chrysanthemus viscidiflorus viscidiflorus																		
S	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	94	-	-	-	1	-	-	-	-	-	1	-	-	-	20		1	
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
Y	86	1	-	-	-	-	-	-	-	-	1	-	-	-	66		1	
	94	6	-	-	-	-	-	-	-	-	6	-	-	-	120		6	
	00	6	-	-	-	-	-	-	-	-	6	-	-	-	120		6	
M	86	7	-	-	-	-	-	-	-	-	7	-	-	-	466	10 7	7	
	94	46	-	-	5	-	-	-	-	-	51	-	-	-	1020	9 8	51	
	00	25	-	-	4	-	-	-	-	-	29	-	-	-	580	10 9	29	
D	86	3	-	-	-	-	-	-	-	-	3	-	-	-	200		3	
	94	1	-	-	-	-	-	-	-	-	-	-	-	-	20		1	
	00	3	-	-	-	-	-	-	-	-	3	-	-	-	60		3	
% Plants Showing			<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>						
			'86	00%		'94	00%		'00	00%						+37%		
																-34%		
Total Plants/Acre (excluding Dead & Seedlings)																		
															'86	732	Dec:	27%
															'94	1160		2%
															'00	760		8%
Gutierrezia sarothrae																		
S	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	94	1	-	-	-	-	-	-	-	-	1	-	-	-	20		1	
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
Y	86	2	-	-	-	-	-	-	-	-	2	-	-	-	133		2	
	94	3	-	-	-	-	-	-	-	-	3	-	-	-	60		3	
	00	2	-	-	-	-	-	-	-	-	2	-	-	-	40		2	
M	86	6	-	-	-	-	-	-	-	-	6	-	-	-	400	5 6	6	
	94	20	-	-	-	-	-	-	-	-	20	-	-	-	400	5 6	20	
	00	17	-	-	1	-	-	-	-	-	18	-	-	-	360	5 6	18	
D	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	94	-	1	-	-	-	-	-	-	-	1	-	-	-	20		1	
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
% Plants Showing			<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>						
			'86	00%		'94	00%		'00	00%						+10%		
																-17%		
Total Plants/Acre (excluding Dead & Seedlings)																		
															'86	533	Dec:	0%
															'94	480		4%
															'00	400		0%

A G E	Y	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.	Total
		1	2	3	4	5	6	7	8	9	1	2	3	4			
Opuntia spp.																	
Y	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0
	94	5	-	-	-	-	-	-	-	-	5	-	-	-	100		5
	00	2	-	-	-	-	-	-	-	-	2	-	-	-	40		2
M	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0
	94	6	-	-	-	-	-	-	-	-	6	-	-	-	120	3	6
	00	4	-	-	1	-	-	-	-	-	5	-	-	-	100	2	5
D	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0
	94	1	4	-	-	-	-	-	-	-	4	-	-	1	100		5
	00	1	-	-	-	-	-	-	-	-	1	-	-	-	20		1
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>				<u>% Change</u>					
'86		00%			00%			00%									
'94		25%			00%			06%				-50%					
'00		00%			00%			00%									
Total Plants/Acre (excluding Dead & Seedlings)										'86	0	Dec:	0%				
										'94	320		31%				
										'00	160		13%				
Pediocactus simpsonii																	
M	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0
	94	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0
	00	1	-	-	-	-	-	-	-	-	1	-	-	-	20	3	1
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>				<u>% Change</u>					
'86		00%			00%			00%									
'94		00%			00%			00%									
'00		00%			00%			00%									
Total Plants/Acre (excluding Dead & Seedlings)										'86	0	Dec:	-				
										'94	0		-				
										'00	20		-				
Pinus edulis																	
S	86	2	-	-	-	-	-	-	-	2	-	-	-	-	133		2
	94	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0
	00	-	-	-	-	-	-	1	-	1	-	-	-	-	20		1
Y	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0
	94	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0
	00	-	-	-	-	-	-	2	-	2	-	-	-	-	40		2
M	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0
	94	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0
	00	3	-	-	-	-	-	2	-	5	-	-	-	-	100	-	5
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>				<u>% Change</u>					
'86		00%			00%			00%									
'94		00%			00%			00%									
'00		00%			00%			00%									
Total Plants/Acre (excluding Dead & Seedlings)										'86	0	Dec:	-				
										'94	0		-				
										'00	140		-				

A G R E	Y	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.	Total
		1	2	3	4	5	6	7	8	9	1	2	3	4			
Symphoricarpos oreophilus																	
S	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0
	94	-	-	-	1	-	-	-	-	-	1	-	-	-	20		1
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0
Y	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0
	94	-	-	-	3	-	-	-	-	-	3	-	-	-	60		3
	00	-	2	-	5	-	-	-	-	-	7	-	-	-	140		7
M	86	2	1	-	-	-	-	-	-	-	3	-	-	-	200	18 25	3
	94	10	-	-	18	1	-	2	-	-	31	-	-	-	620	15 27	31
	00	16	-	-	16	-	-	4	-	-	36	-	-	-	720	8 14	36
D	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0
	94	-	-	-	-	-	1	-	-	-	1	-	-	-	20		1
	00	-	-	-	6	-	-	-	-	-	6	-	-	-	120		6
% Plants Showing			<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>					
	'86															+71%	
	'94															+29%	
	'00																
Total Plants/Acre (excluding Dead & Seedlings)												'86	200	Dec:	0%		
												'94	700		3%		
												'00	980		12%		